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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 09	CA/CAPLUS records now contain indexing from 1907 to the present
NEWS	4	AUG 05	New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS	5	AUG 13	Field Availability (/FA) field enhanced in BEILSTEIN
NEWS	6	AUG 18	Data available for download as a PDF in RDISCLOSURE
NEWS	7	AUG 18	Simultaneous left and right truncation added to PASCAL
NEWS	8	AUG 18	FROSTI and KOSMET enhanced with Simultaneous Left and Right Truncation
NEWS	9	AUG 18	Simultaneous left and right truncation added to ANABSTR
NEWS	10	SEP 22	DIPPR file reloaded
NEWS	11	DEC 08	INPADOC: Legal Status data reloaded
NEWS	12	SEP 29	DISSABS now available on STN
NEWS	13	OCT 10	PCTFULL: Two new display fields added
NEWS	14	OCT 21	BIOSIS file reloaded and enhanced
NEWS	15	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS	16	NOV 24	MSDS-CCOHS file reloaded
NEWS	17	DEC 08	CABA reloaded with left truncation
NEWS	18	DEC 08	IMS file names changed
NEWS	19	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS	20	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAPLUS
NEWS EXPRESS			NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

Kamal Saeed

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*ENCOMPPAT - EnCompass Patent File 1964-present (Supporters)
*ENCOMPPAT2 - EnCompass Patent File 1964-Present (Non-Supporters)

* The files listed above are temporarily unavailable.

FILE 'HOME' ENTERED AT 11:48:08 ON 14 DEC 2003

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 11:48:17 ON 14 DEC 2003

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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 12 DEC 2003 HIGHEST RN 626603-92-7

DICTIONARY FILE UPDATES: 12 DEC 2003 HIGHEST RN 626603-92-7

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d

ENTER NAME OF ITEM TO BE DISPLAYED OR (?):

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'UPLOAD' IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

=> 09893858.str

0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

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"HELP COMMANDS" at an arrow prompt (=>).

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0 IS NOT A RECOGNIZED COMMAND

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"HELP COMMANDS" at an arrow prompt (=>).

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0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

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For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=>

0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

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0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

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0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> d

ENTER NAME OF ITEM TO BE DISPLAYED OR (?):end

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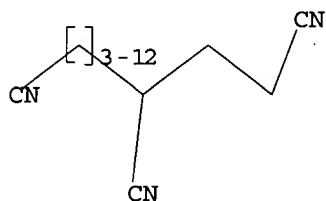
Uploading 09893858.str

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

FULL SEARCH INITIATED 11:49:12 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 7824 TO ITERATE

100.0% PROCESSED 7824 ITERATIONS

48 ANSWERS

SEARCH TIME: 00.00.01

L2 48 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

148.55

148.76

FILE 'CAPLUS' ENTERED AT 11:49:19 ON 14 DEC 2003

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FILE COVERS 1907 - 14 Dec 2003 VOL 139 ISS 25
FILE LAST UPDATED: 12 Dec 2003 (20031212/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l2
L3          68 L2

=> s l3 and acrylonitrile
      83204 ACRYLONITRILE
      937 ACRYLONITRILES
      83461 ACRYLONITRILE
              (ACRYLONITRILE OR ACRYLONITRILES)
L4          39 L3 AND ACRYLONITRILE

=> s l4 and dinitrile
      1821 DINITRILE
      1291 DINITRILES
      2645 DINITRILE
              (DINITRILE OR DINITRILES)
L5          0 L4 AND DINITRILE

=> d ibib abs hitstr tot l4
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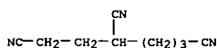
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L4 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2003:532626 CAPLUS
 DOCUMENT NUMBER: 139:86730
 TITLE: Preparation of a polycarboxylic acid mixture containing mainly 1,3,6-hexanetricarboxylic acid
 INVENTOR(S): Date, Hideki; Shimoda, Teruyoshi
 PATENT ASSIGNEE(S): Asahi Kasei Kabushiki Kaisha, Japan
 SOURCE: PCT Int. Appl., 97 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055836	A1	20030710	WO 2002-JP13808	20021227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SH, TD, TG

PRIORITY APPLN. INFO.: JP 2001-397451 A 20011227
 AB This document discloses a polycarboxylic acid mixt. having a 1,3,6-hexanetricarboxylic acid (I) content of 80 wt.% or higher, characterized by having a psychometric lightness L of 98 or higher, a chromaticness index a of -2.0 to 2.0, a chromaticness index b of -2.0 to 3.0, and a nitrogen content of 5,000 wt.ppm or lower. The above mixt. was obtained by hydrolysis of a mixt. contg. mainly 1,3,6-tricyanohexane. I is useful as a hardener for compds. contg. epoxy functions and is used in coatings.
 IT 1772-25-4P, 1,3,6-Tricyanohexane
 RL: BYP (Byproduct); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of polycarboxylic acid mixt. contg. mainly 1,3,6-hexanetricarboxylic acid as hardener for epoxy resins)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

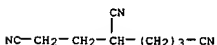


REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2003:525387 CAPLUS
 DOCUMENT NUMBER: 139:68954
 TITLE: Preparation of colorless 1,3,6-hexanetricarboxylic acid from 1,3,6-tricyanohexane as byproducts of electroreduction of acrylonitrile
 INVENTOR(S): Ubutame, Takuji; Shimoda, Akiyoshi
 PATENT ASSIGNEE(S): Asahi Kasei Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003192631	A2	20030709	JP 2001-397453	20011227

PRIORITY APPLN. INFO.: JP 2001-397453 20011227
 AB 1,3,6-Hexanetricarboxylic acid (I) and/or its salts are prepd. by (A) hydrolysis of crude 1,3,6-tricyanohexane (II) obtained by electroredn. of CH3CN and (B) crystn. Thus, a mixt. contg. II 93.3, 3-cyanomethyl-1,5-dicyanopentane 5.8, and adiponitrile 0.9% was hydrolyzed with NaOH, neutralized, water added, and cooled to 3-10.degree. to give 73.9% I having purity of 99.6% and L value of 98.94.
 IT 1772-25-4P, 1,3,6-Tricyanohexane
 RL: BYP (Byproduct); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (crystn. of hexanetricarboxylic acid prepd. from tricyanohexane as byproducts of electroredn. of acrylonitrile)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

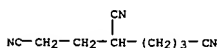


L4 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L4 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2003:525386 CAPLUS
 DOCUMENT NUMBER: 139:68953
 TITLE: Preparation of colorless 1,3,6-hexanetricarboxylic acid from 1,3,6-tricyanohexane as byproducts of electroreduction of acrylonitrile
 INVENTOR(S): Shimoda, Akiyoshi; Ishida, Hiroshi
 PATENT ASSIGNEE(S): Asahi Kasei Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003192630	A2	20030709	JP 2001-397452	20011227

PRIORITY APPLN. INFO.: JP 2001-397452 20011227
 AB 1,3,6-Hexanetricarboxylic acid (I) and/or its salts are prepd. by (A) hydrolysis of crude 1,3,6-tricyanohexane (II) obtained by electroredn. of CH3CN and (B) treatment of the reaction mixts. with oxidizing agents. Thus, a mixt. contg. II 93.3, 3-cyanomethyl-1,5-dicyanopentane 5.8, and adiponitrile 0.9% was hydrolyzed with NaOH to give pale brown I, which was dissolved in water and treated with ozone for bleaching.
 IT 1772-25-4P, 1,3,6-Tricyanohexane
 RL: BYP (Byproduct); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (O3 bleaching of hexanetricarboxylic acid prepd. from tricyanohexane as byproducts of electroredn. of acrylonitrile)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

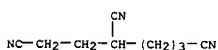


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L4 ANSWER 4 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2003:510101 CAPLUS
 DOCUMENT NUMBER: 139:68960
 TITLE: Less-colored trinitrile mixtures and their preparation
 INVENTOR(S): Shimoda, Akiyoshi; Ishida, Hiroshi
 PATENT ASSIGNEE(S): Asahi Kasei Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003183239	A2	20030703	JP 2001-389826	20011221
JP 2001-389826			JP 2001-389826	20011221

PRIORITY APPLN. INFO.:
 AB Less-colored trinitrile mixts., which show content of trinitrile compds. .gtoreq.85%, content of adiponitrile (I) .ltoreq.10%, L value (brightness) of 0.10 g/mL diethylene glycol di-Me ether soln. .gtoreq.98, and a and b values (chromaticness indexes) -1.0-1.0 and -1.0-2.0, resp., are prepd.
 by (1) electrolytic redn. of acrylonitrile in the presence of electrolytes, (2) removal of I and components having b.p. higher than that of trinitrile compds. from the reaction product mainly contg. I so that content of I is .ltoreq.10% and content of trinitrile compds. is .gtoreq.85%, and (3) treatment of the products with solid adsorbents and/or oxidizing agents. Thus, a mixt. contg. 1,3,6-tricyanohexane (II) 93.3, 3-cyanomethyl-1,5-dicyanopentane 5.8, and I 0.9% (L value 99.8, a value -0.20, b value 0.11, and APhA .ltoreq.100) was obtained by the above method. II is useful as a material for 4-aminomethyl-1,8-diaminooctane, 1,3,6-hexanetricarboxylic acid, etc.
 IT 1772-25-4P, 1,3,6-Tricyanohexane
 RL: IMF (Industrial manufacture); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of less-colored trinitrile mixts. by electrolytic redn. of acrylonitrile and removal of adiponitrile)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
 CN
 NC-CH₂-CH₂-CH-(CH₂)₃-CN
 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2002:172114 CAPLUS
 DOCUMENT NUMBER: 136:215533
 TITLE: Method for an enzymatic reaction of compounds having at least one nitrile function and/or at least one amide function
 INVENTOR(S): Hauer, Bernhard; Pressler, Uwe; Ress-Loeschke, Marion;
 Syldatk, Christoph; Christian, Hans-Juergen;
 Pietzsch,
 PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
 SOURCE: PCT Int. Appl., 49 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

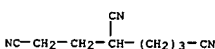
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018612	A1	20020307	WO 2001-EP10025	20010830

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, BG, BR, CA, CH, CN, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GN, GW, GM, ML, MR, NE, NG, NI, NO, OM, PG, PH, PK, PR, RW, SD, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, BG, BR, CA, CH, CN, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRIORITY APPLN. INFO.:
 DE 2000-10042835 A 20000830
 WO 2001-EP10025 W 20010830
 OTHER SOURCE(S): CASREACT 136:215533
 AB The invention relates to the enzymatic reaction of compds. having at least one nitrile function and/or at least one amide function with at least one microorganism and/or at least one nitrile hydratase-amidase complex isolated from Rhodococcus erythropolis DSM 13002, Rhodococcus erythropolis DSM 13475 and Rhodococcus erythropolis DSM 13476. Thus, free cells of Rhodococcus erythropolis DSM 13002 reduced ~ 90 mM propanenitrile to produce propanamide in 15 min. The resulting propanamide was then slowly deamidated to produce propanoic acid.
 IT 1772-25-4, 1,3,6-Hexanetricarbonitrile
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (enzymic redn. and deamidation with Rhodococcus nitrile hydratase and amidase)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2002:31043 CAPLUS
 DOCUMENT NUMBER: 136:71544
 TITLE: Process for the preparation of 1,3,6-hexanetricarbonitrile
 INVENTOR(S): Schelhaas, Michael; Jautelat, Manfred
 PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
 SOURCE: Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1170282	A1	20020109	EP 2001-114779	20010626
EP 1170282	B1	20031001		

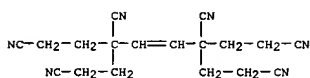
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 DE 10032881 A1 20020117 DE 2000-10032881 A 20000706
 AT 251121 E 20031015 AT 2001-1114779 20010626
 US 2002007081 A1 20020117 US 2001-893858 20010628
 JP 2002053540 A2 20020219 JP 2001-202163 20010703
 CN 1341589 A 20020327 CN 2001-122837 20010706
 PRIORITY APPLN. INFO.:
 DE 2000-10032881 A 20000706
 OTHER SOURCE(S): MARPAT 136:71544
 AB 1,3,6-Hexanetricarbonitrile is prepd. by the addn. reaction of an org. adiponitrile soln. (e.g., toluene solvent) with acrylonitrile in the presence of an aq. strong base (e.g., KOH) soln. in the presence of a phase-transfer catalyst (e.g., tetrabutylammonium bisulfate).
 IT 1772-25-4P, 1,3,6-Hexanetricarbonitrile
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (process for the prepn. of 1,3,6-hexanetricarbonitrile)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
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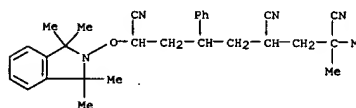
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L4 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1998:598898 CAPLUS
 DOCUMENT NUMBER: 129:289789
 TITLE: The kinetics and mechanism of the phosphorus-catalyzed dimerization of acrylonitrile
 AUTHOR(S): Hall, C. Dennis; Lowther, Nicholas; Tweedy, Bruce R.; Hall, Adam C.; Shaw, Gordon
 CORPORATE SOURCE: Dept. of Chemistry, King's College, London, WC2R 2LS, UK
 SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1998), (9), 2047-2054
 CODEN: JCPKDH; ISSN: 0300-9580
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Iso-Pr diarylphosphinites (Ar2POPri) catalyze the dimerization of acrylonitrile (AN) to a mixt. of cis- and trans-1,4-dicyanobut-1-ene (cis,trans-DCB-1), trans-1,4-dicyanobut-2-ene (DCB-2) and 2,4-dicyanobut-1-ene (MGN). The kinetics and mechanism of the reaction, which is a potential source of hexamethylenediamine, are reported in detail and the factors which govern rate and selectivity to DCB-1 and DCB-2 rather than MGN are elaborated.
 IT 68334-52-1P
 RL: BYP (Byproduct); PREP (Preparation)
 (byproduct; kinetics and mechanism of the phosphorus-catalyzed dimerization of acrylonitrile)
 RN 68334-52-1 CAPLUS
 CN 4-Octene-1,3,6,8-tetracarboxitrile, 3,6-bis(2-cyanoethyl)- (7CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1998:583634 CAPLUS
 DOCUMENT NUMBER: 129:276394
 TITLE: Initiation mechanisms in free radical polymerization: competitive reaction of cyanoisopropyl radicals with styrene and acrylonitrile
 AUTHOR(S): Busfield, W. Ken; Jenkins, Ian D.; Le, Phuc Van
 CORPORATE SOURCE: School of Science, Griffith University, Brisbane, 4111, Australia
 SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1998), 36(13), 2169-2176
 CODEN: JPACEC; ISSN: 0887-624X
 PUBLISHER: John Wiley & Sons, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The competitive reactions of cyanoisopropyl radicals with mixed monomers styrene and acrylonitrile were studied using the nitroxide radical trapping technique. When the trap concn. is low, second, third, and even fourth generation (in terms of successive monomer addn.) carbon radicals were obsd. as trapped products. The ratio of rate consts. for the addn. of styrene and acrylonitrile to cyanoisopropyl radicals is 2.7 at 75.degree. and 5.3 at 105.degree.. These values were compared with the ratios for reactions of these two monomers with other radicals and the mechanism is discussed in terms of polarity of radicals and monomers.
 IT 213916-14-4P
 RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (initiation mechanism and competitive reaction of cyanoisopropyl radicals with styrene and acrylonitrile in radical polymn.)
 RN 213916-14-4 CAPLUS
 CN 1,5,7-Octanetricarbonitrile, 1-((1,3-dihydro-1,1,3,3-tetramethyl-2H-isoindol-2-yl)oxy)-7-methyl-3-phenyl- (9CI) (CA INDEX NAME)

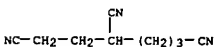


REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
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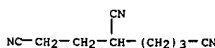
L4 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1998:196292 CAPLUS
 DOCUMENT NUMBER: 128:218622
 TITLE: Use of hexanetricarboxylic acid as a complexing agent or builder in detergent formulations
 INVENTOR(S): Oftring, Alfred; Ott, Christian; Potthoff-Karl,
 Birgit
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Ger. Offen., 13 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19637428	A1	19980319	DE 1996-19637428	19960913

 PRIORITY APPLN. INFO.: DE 1996-19637428 19960913
 AB 1,3,6-Hexanetricarboxylic acid (I: a byproduct of acrylonitrile manuf.) or its alkali metal or ammonium salt is used as a complexing agent or (co)builder in laundry detergents and cleaning agents, showing improved biodegradability over EDTA. Thus, 1,3,6-tricyanoheptane was hydrolyzed in 20% NaOH and acidified with concd. H2SO4 to give I. An effective cleaning agent for stainless steel brewing tanks at 60-80.degree. was prepd. by combining 50% KOH 40, 30% soln. of the tri-Na salt of I 20, ethoxylated isotridecanol and isononanoic acid 3, aliph. carboxylic acid mixt. 3, and water 34 wt.%.
 IT 1772-25-4, 1,3,6-Tricyanoheptane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (use of hexanetricarboxylic acid as complexing agent or builder in detergent formulations)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1998:90235 CAPLUS
 DOCUMENT NUMBER: 128:197887
 TITLE: Electroorganic synthesis and product recovery
 AUTHOR(S): King, Chris J. H.; Cutchens, Charles E.
 CORPORATE SOURCE: Solutia, Inc., Pensacola, FL, USA
 SOURCE: Electrochemical Processing Technologies, International
 Forum, Electrolysis in the Chemical Industry, 11th, Clearwater Beach, Fla., Nov. 2-6, 1997 (1997), 247-258. Electrosynthesis: Lancaster, N. Y.
 CODEN: 650RAS
 DOCUMENT TYPE: Conference
 LANGUAGE: English
 AB The problems of formation unstable polymer from monomers formed from de-cyanoethylation that leads to carbonization and fouling of column surfaces, the instability of cyanoethylation products that leads to refined adiponitrile (ADN) contg. unexpected level of impurities which reduce hydrogenation catalyst activity in the electrohydrodimerization (HMD) process are discussed. It is noted that in the cell operation it is necessary to prevent formation of reversible cyanoethylated impurities to avoid yield losses, ADN refining train fouling, catalyst poisons and undesirable impurities in refined HMD.
 IT 1772-25-4P, 1,3,6-Hexanetricarbonitrile
 RL: BYP (Byproduct); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
 (electroorg. synthesis and product recovery)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

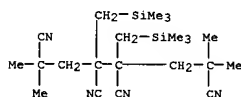


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
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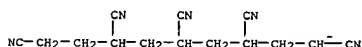
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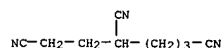
L4 ANSWER 15 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1988:37904 CAPLUS
 DOCUMENT NUMBER: 108:37904
 TITLE: Chemistry of organosilicon compounds. 226.
 (2-cyanoallyl)trimethylsilane and (2-
 cyanoethyl)trimethylsilane. Unique .sigma..pi.
 captodative systems
 AUTHOR(S): Sakurai, Hideki; Kyushin, Soichiro; Nakadaira,
 Yasuhiro
 CORPORATE SOURCE: Fac. Sci., Tohoku Univ., Sendai, 980, Japan
 SOURCE: Chemistry Letters (1987), (2), 297-300
 CODEN: CMLTAG; ISSN: 0366-7022
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 108:37904
 AB Addn. reactions of (2-cyanoallyl)trimethylsilane (I) as well as hydrogen
 abstraction reactions of (2-cyanoethyl)trimethylsilane (II) were examd.
 These compds. exhibit high reactivities in free-radical reactions,
 demonstrating existence of the .sigma..pi. captodative effect. Thus,
 pyrolysis of I in a sealed tube yielded only
 Me3SiCH2CH(CN)CH2CH2C(CN):CHS
 iMe3 and no cyclobutane deriv., as is the fate of the intermediate
 radical
 formed from pyrolysis of acrylonitrile. A significant
 .sigma..pi. captodative effect stabilized the intermediate radical formed
 from I preventing ring closure under the exptl. conditions. Competitive
 bromination reactions of II and related substrates, including NCH2R (R =
 Me, Ph, SMe, OMe, O2CMe2), with NBS were performed to
 evaluate
 the relative stabilities of intermediate radicals formed during the
 hydrogen abstraction. The SMe group is an exceptionally strong donor in
 the captodative effect for stabilization of the radical and Me and O2CMe
 are weak donors. The Me3SiCH2, MeO, and Ph groups are of medium donor
 ability.
 IT 112313-68-5P
 RL: SEN (Synthetic preparation); PREP (Preparation)
 (prepn. of, from dimerization of (cyanoallyl)trimethylsilyl radical)
 RN 112313-68-5 CAPLUS
 CN 2,4,5,7-Octanetetra-carbonitrile, 2,7-dimethyl-4,5-
 bis[(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1982:180673 CAPLUS
 DOCUMENT NUMBER: 96:180673
 TITLE: Anionic telomerization of acrylonitrile
 initiated by -CH2CN in the gas phase
 AUTHOR(S): McDonald, Richard N.; Chowdhury, A. Kasem
 CORPORATE SOURCE: Dep. Chem., Kansas State Univ., Manhattan, KS, 66506,
 USA
 SOURCE: Journal of the American Chemical Society (1982),
 104(9), 2675-6
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The title process involved the sequence NCH2- + CH2:CHCN .fwdarw. m/z 93
 .fwdarw. m/z 146 .fwdarw. m/z 199 .fwdarw. m/z 252. Termination of the
 telomerization occurred at the tetrameric anion, and apparently resulted
 from intramol. ion-dipole assocn. of the anion growing end, -CHCN-, with
 2
 cyano groups on the telomer backbone. The data were simulated by
 computer, yielding the rate consts. for each step and an upper limit for
 the further telomerization of the tetrameric anion.
 IT 81388-06-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 81388-06-9 CAPLUS
 CN 1,3,5,7,9-Nonanepentacarbonitrile, ion(1-) (9CI) (CA INDEX NAME)



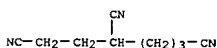
L4 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1987:184858 CAPLUS
 DOCUMENT NUMBER: 106:184858
 TITLE: Selectivity characteristics of the
 electrohydrodimerization of acrylonitrile
 AUTHOR(S): Scott, K.; McConvey, I. F.; Henderson, J.
 CORPORATE SOURCE: Dep. Chem. Eng., Teesside Polytech.,
 Middlesbrough/Cleveland, TS1 3BA, UK
 SOURCE: Journal of Applied Electrochemistry (1987), 17(2),
 329-39
 CODEN: JAELEBJ; ISSN: 0021-891X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A math. model of a reaction scheme for the electrohydrodimerization of
 acrylonitrile to adiponitrile in a loop reactor is presented.
 This model, which is based on a plug flow reactor with a recycle loop and
 continuous removal of the product, is used to simulate steady-state
 operation at various operating conditions. The effect of flow rate, c.d.
 and mass transport were investigated in terms of their effect on product
 distributions and selectivity. Overall, the reaction model deals with
 the
 formation of 5 products from the cathodic reactions.
 IT 1772-25-4, 1,3,6-Tricyanohexane
 RL: PROC (Process)
 (transformation of, in electrohydrodimerization of
 acrylonitrile, math. model for)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1981:514820 CAPLUS
 DOCUMENT NUMBER: 95:114820
 TITLE: Adiponitrile from 1,3,6-tricyanohexane
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

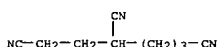
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56040656	A2	19810416	JP 1979-116687	19790913
JP 62015068	B4	19870406		

 PRIORITY APPLN. INFO.: JP 1979-116687 19790913
 AB Adiponitrile (I) was recovered from pyrolysis of 1,3,6-tricyanohexane
 (II)
 at 300-420.degree. in the liq. phase or at 400-600.degree. in the gas
 phase with or without a catalyst. Thus, silica gel contg. 1.5% NaOH was
 pelletized with bentonite, packed into a glass tube, and treated with 2 g
 II/h-mL catalyst at 450.degree./20-40 mm to give 53.6% I and 49.9%
 acrylonitrile with 81.9% conversion. K2CO3, MgO, KOH, KCN, Pt,
 V2O5, or Cr2O3 was also used.
 IT 1772-25-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pyrolysis of, adiponitrile from)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



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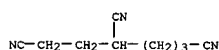
L4 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1979:465194 CAPLUS
 DOCUMENT NUMBER: 91:65194
 TITLE: The Phillips' process for the electrohydrodimerization of acrylonitrile
 AUTHOR(S): Childs, W. V.; Walters, H. C.
 CORPORATE SOURCE: Phillips Pet. Co., Bartlesville, OK, 74004, USA
 SOURCE: AIChE Symposium Series (1979), 75(185), 19-25
 CODEN: ACSSQJ; ISSN: 0065-8812
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The Phillips' electrochem. process for converting acrylonitrile to adiponitrile employs an undivided cell with Pb electrodes and offers lower investment and lower energy costs compared to other similar processes. The electrolysis cell used in the process is described. The electrolyte is K phosphate with a trace of Bu4N+. The yield of adiponitrile depended on acrylonitrile level pH, tetraalkylammonium concn. and compn., electrolyte concn., c.d., and linear flow rate in the cell. The optimized efficiency was >90% which is comparable to other electrohydrodimerization processes. The terminal voltage was 4.0 V at 2 kA/m2 and 50.degree..
 IT 1772-25-4P
 RL: FORM (Formation, nonpreparative); PREP (Preparation) (formation of, in acrylonitrile electrohydrodimerization)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



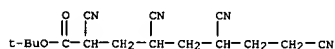
L4 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1979:88043 CAPLUS
 DOCUMENT NUMBER: 90:88043
 TITLE: Thermal conversion of 4-cyano-suberonitrile to acrylonitrile
 INVENTOR(S): Campbell, Charles R.; Heckle, William A.; Mathews, Marion J.
 PATENT ASSIGNEE(S): Monsanto Co., USA
 SOURCE: U.S., 4 pp..
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4128571	A	19781205	US 1977-846100	19771027

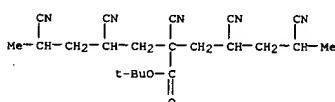
PRIORITY APPLN. INFO.:
 AB 4-Cyano-suberonitrile (I) [1772-25-4] is continuously converted to acrylonitrile (II) [107-13-1] in a catalyst-free reaction at 700-800.degree. and vol. hourly space velocity (VHSV) 2600-8000. Thus, a mixt. of I 70.5, adiponitrile 2.5, and other materials 27% was fed into a 10 ft. times. 0.25 in. stainless steel tube at 750.degree. and VHSV 2632 (contact time 1.37 s) to give 30.9% II. Optionally, the feed mixt. can contain .litoreq.2 parts propionitrile [107-12-0] diluent per part of the above feed mixt.
 IT 1772-25-4
 RL: PROC (Process) (thermal conversion of, to acrylonitrile, noncatalytic)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1978:23446 CAPLUS
 DOCUMENT NUMBER: 88:23446
 TITLE: Synthesis of polyacrylonitrile oligomers. II. Saturated oligomers
 AUTHOR(S): Ballard, Henri; Meybeck, Jean
 CORPORATE SOURCE: Lab. Chim. Org. Ind., CNRS, Mulhouse, Fr.
 SOURCE: European Polymer Journal (1977), 13(7), 617-21
 CODEN: EUPJAG; ISSN: 0014-3057
 DOCUMENT TYPE: Journal
 LANGUAGE: French
 AB Eleven compds. RCH(CN)[CH2CH(CN)]nR1 (I) were prepd. from the unsatd. CH2:CHCN oligomers. The unsymmetric compds. I (R = Me, R1 = H; n = 1-3), e.g. MeCH(CN)[CH2CH(CN)]3H [64918-23-6] were prepd. by hydrogenation of CH2:C(CN)[CH2CH(CN)]nR and condensation of 1 or 2 mols. unsatd. oligomer with tert-Bu cyanoacetate [1116-98-9] followed by pyrolysis gave I (R = R1 = Me; R = R1 = H; n = 1-4), e.g. MeCH(CN)[CH2CH(CN)]2Me [17199-93-8] and CH2(CN)[CH2CH(CN)]2H [4379-04-8].
 IT 64918-26-9P 64918-28-1P 64918-30-5P
 64936-51-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and pyrolysis of)
 RN 64918-26-9 CAPLUS
 CN Octanoic acid, 2,4,6,8-tetracyano-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

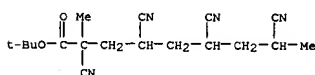


RN 64918-28-1 CAPLUS
 CN Heptanoic acid, 2,4,6-tricyano-2-(2,4-dicyanopentyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



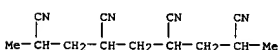
RN 64918-30-5 CAPLUS
 CN Hexanoic acid, 2,4,6-tricyano-2-(2,4-dicyanobutyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
 NC-CH2-CH2-CH(CN)-CH2-C(CN)(CN)-CH2-CH(CN)-CH2-CH2-CN
 t-BuO-C(=O)-
 O
 RN 64936-51-2 CAPLUS
 CN Nonanoic acid, 2,4,6,8-tetracyano-2-methyl-, 1,1-dimethylethyl ester (9CI)
 (CA INDEX NAME)

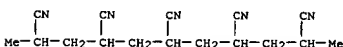


IT 64000-86-8P 64000-87-9P 64918-23-6P
 64918-24-7P 64918-25-8P
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

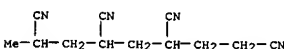
RN 64000-86-8 CAPLUS
 CN 2,4,6,8-Nonanetetracarboxitrile (7CI, 9CI) (CA INDEX NAME)



RN 64000-87-9 CAPLUS
 CN 2,4,6,8,10-Undecanepentacarboxitrile (9CI) (CA INDEX NAME)



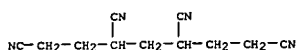
RN 64918-23-6 CAPLUS
 CN 1,3,5,7-Octanetetracarboxitrile (9CI) (CA INDEX NAME)



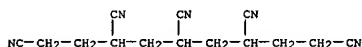
RN 64918-24-7 CAPLUS
 CN 1,3,5,7-Heptanetetracarboxitrile (6CI, 9CI) (CA INDEX NAME)

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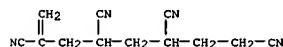
L4 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



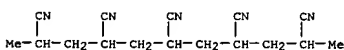
RN 64918-25-8 CAPLUS
CN 1,3,5,7,9-Nonanepentacarbonitrile (9CI) (CA INDEX NAME)



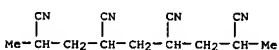
L4 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1978:7439 CAPLUS
DOCUMENT NUMBER: 88:7439
TITLE: Synthesis of polyacrylonitrile oligomers. I. Unsaturated oligomers
AUTHOR(S): Balard, Henri; Meybeck, Jean
CORPORATE SOURCE: Lab. Chim. Org. Ind., CNRS, Mulhouse, Fr.
SOURCE: European Polymer Journal (1977), 13(7), 611-15
CODEN: EUPJAG; ISSN: 0014-3057
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Five oligomers $\text{CH}_2=\text{CN}(\text{CH}_2\text{CHCN})_n\text{R}$ (R = H or Me, n = 1-3), e.g. 2,4-dicyano-1-pentene [35299-21-9], were prep'd. by Bu3P catalyzed anionic oligomerization of acrylonitrile [107-13-1] and by Feit's iterative method. The 2 synthesis methods were discussed and the products were characterized by chromatog. and IR and NMR spectroscopy.
IT 64918-32-7P
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
RN 64918-32-7 CAPLUS
CN 7-Octene-1,3,5,7-tetracarbonitrile (9CI) (CA INDEX NAME)



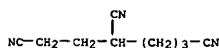
L4 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1977:51831 CAPLUS
DOCUMENT NUMBER: 87:11831
TITLE: Determination of the tacticity of polyacrylonitrile and its oligomers by carbon-13 NMR spectroscopy
AUTHOR(S): Balard, Henri; Fritz, Hans; Meybeck, Jean
CORPORATE SOURCE: Lab. Chim. Org. Ind., Ec. Super. Chim., Mulhouse, Fr.
SOURCE: Makromolekulare Chemie (1977), 178(8), 2393-9
CODEN: MACEAK; ISSN: 0025-116X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The microtacticity of polyacrylonitrile (I) [25014-41-9] and its model compds., the dimer [15074-49-4], trimer [17199-93-8], and tetramer [64000-86-8] of acrylonitrile were detd. by 13C NMR spectroscopy. In the case of the oligomers, the carbons of the chain are the most stereosensitive ones, but for I the carbon of the cyano group was the most stereosensitive. The 13C NMR spectrum of I was composed of 10 peaks which can be assigned to the 10 possible pentad configurations.
The 13C NMR technique allows for the direct estn. of the relative concns. of the different isomers in a mixt. and is, therefore, the best spectroscopic technique for controlling the efficiency of the methods used to sep. oligomer diastereoisomers.
IT 64000-87-9
RL: PRP (Properties) (NMR of)
RN 64000-87-9 CAPLUS
CN 2,4,6,8,10-Undecanepentacarbonitrile (9CI) (CA INDEX NAME)



IT 64000-86-8
RL: PRP (Properties) (tacticity of, detn. of, by carbon-13 NMR)
RN 64000-86-8 CAPLUS
CN 2,4,6,8-Nonanetetracarbonitrile (7CI, 9CI) (CA INDEX NAME)



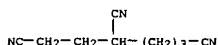
L4 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1976:45883 CAPLUS
DOCUMENT NUMBER: 84:45883
TITLE: Acrylic fibers
INVENTOR(S): Shimizu, Kunitoshi; Iwasa, Toshio; Seki, Shuji
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKOXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
PATENT NO. KIND DATE APPLICATION NO. DATE
JP 50111148 A2 19750901 JP 1974-13621 19740204
PRIORITY APPLN. INFO.: JP 1974-13621 19740204
AB Melt spinning blends contg. an acrylic polymer (contg. mainly acrylonitrile (I) units) and a I trimer, e.g., 1,3,6-tricyanohexane (II) [1772-25-4], or mixts. of oligomeric polyacrylonitrile [25014-41-9] contg. the trimer gave fibers with increased tensile strength. Thus, a mixt. contg. I 95, Me acrylate (III) 5, II 80, and tert-Bu peroxydipivalate 1.5 parts was polymd. 10 hr at 70.degree. to give a polymer (IV) [24968-79-4] mixt. IV mixt. (contg. 43% II) was spun at 169.degree. and the spun fibers were drawn 200% in H2O at 100.degree. and heated 1 min at 135.degree. to give 2.7-denier/filament fibers with tenacity 4.81 g/denier and elongation 13.5%. Vinyl acetate-I copolymer [24980-62-9], Me methacrylate-I copolymer [30396-85-1], Na allylsulfonate-I-III copolymer [25053-78-5], 2-vinylpyridine-I copolymer [26836-60-2], and vinylidene chloride-I copolymer [9010-76-8] were also used.
IT 1772-25-4
RL: USES (Uses) (blends with acrylic polymers, spinning of, for increased tensile strength)
RN 1772-25-4 CAPLUS
CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



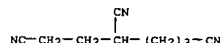
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L4 ANSWER 25 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1976:32541 CAPLUS
 DOCUMENT NUMBER: 84:32541
 TITLE: Pilling-resistant acrylic fabrics
 INVENTOR(S): Shimizu, Kunitoshi; Iwase, Toshimi; Seki, Shuji
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKKXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50111400	A2	19750902	JP 1974-17129	19740214
PRIORITY APPLN. INFO.: JP 1974-17129 19740214				
AB Finishing acrylic fabrics with aq. compns. contg. 1,3,6-tricyanohexane				
(I) [1772-25-4] or I-3-cyanomethyl-1,5-dicyanopentane (II) [16466-63-0] and optionally contg. oligomeric polyacrylonitrile [25014-41-9] gave fabrics with increased resistance to pilling. Thus, bulky Cashmilon (acrylic fibers) yarns were immersed in an aq. mixt. contg. I-II at 40.degree., padded to 3% pickup, dried, dyed, and finished with a softening agent. The pilling resistance rating (I. C. I. pilling tester) for a fabric knitted from the resulting yarns was 4.5, compared with 1.5 for a fabric knitted from the untreated yarns.				
Acrylonitrile-methyl acrylate-sodium p-styrenesulfonate copolymer [27103-73-7] was also used.				
IT 1772-25-4				
RL: USES (Uses) (finishing agents, for acrylic fabrics, for increased pilling resistance)				
RN 1772-25-4 CAPLUS				
CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)				

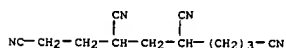


L4 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1972:85349 CAPLUS
 DOCUMENT NUMBER: 76:85349
 TITLE: Identification of high-boiling impurity in adipodinitrile, obtained from acrylonitrile
 AUTHOR(S): Usova, E. P.; Upadysheva, A. V.; Mitina, L. I.; Grigor'eva, N. D.; Znamenskaya, A. P.
 CORPORATE SOURCE: USSR
 SOURCE: Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1971), 44(11), 2598-9
 CODEN: ZPKHAB; ISSN: 0044-4618
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB 1,3,6-Tricyanohexane (I) was sepd. from adipodinitrile by preparative liq. chromatog. on Al2O3. I was also obtained by heating 1-amino-2-cyano-1-cyclopentene and acrylonitrile in C6H6 with a catalytic amt. Na 6-8 hr at 80.degree..
 IT 1772-25-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
(as impurity in adiponitrile)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

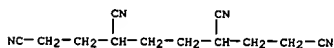


L4 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1969:480616 CAPLUS
 DOCUMENT NUMBER: 71:80616
 TITLE: Electrolytic reductive oligomerization of acrylonitrile and related olefins
 AUTHOR(S): Baizer, Manuel M.
 CORPORATE SOURCE: Cent. Res. Dep., Monsanto Co., St. Louis, MO, USA
 SOURCE: World Petrol. Congr., Proc., 7th (1968), Meeting Date 1967, Volume 5, 311-16. Elsevier Publ. Co. Ltd.: Barking, Engl.
 CODEN: 21GNA6
 DOCUMENT TYPE: Conference
 LANGUAGE: English
 AB The electrolytic reductive oligomerization of concd. solns. of acrylonitrile in hydrotropic electrolytes has been studied over a range of H2O concns. At high H2O content, propionitrile is the main redn. product; at intermediate concns., almost quant. yields of adiponitrile are obtained; in nearly anhyd. media hydrotimer, hydrotetramer as well as low-melting acrylonitrile polymers are formed. The probable mode of formation of this range of products is discussed. Electrolytic reductive dimerization was extended to include all monomeric activated olefins in which the activating group is itself not reduced; higher oligomerization was sought for and demonstrated in only a limited number of cases. The acrylonitrile dimer, .alpha.-methylene-glutaronitrile, underwent electrolytic reductive dimerization to yield an acrylonitrile hydrotetramer and mixed reductive coupling with acrylonitrile to yield acrylonitrile hydrotimer. The formation of oligomers from acrylonitrile on treatment with catalytic quantities of tertiary phosphines is discussed. The relevant literature on non-electrolytic methods for oligomerizing activated olefins is cited.

IT 1572-42-5P 1572-43-6P 1772-25-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prep. of)
 RN 1572-42-5 CAPLUS
 CN 1,3,5,8-Octanetetracarbonitrile (7CI, 8CI) (CA INDEX NAME)

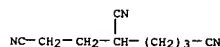


RN 1572-43-6 CAPLUS
 CN 1,3,6,8-Octanetetracarbonitrile (7CI, 8CI) (CA INDEX NAME)



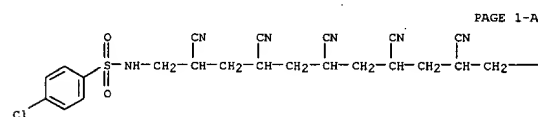
RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

L4 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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L4 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN
 ACCESSION NUMBER: 1969:439500 CAPLUS
 DOCUMENT NUMBER: 71:39500
 TITLE: Telomerization of acrylonitrile by
 N,N-dichloro-p-chlorobenzenesulfonamide
 Rybakova, N. A.; Freidina, R. Kh.
 AUTHOR(S): Inst. Elementoorg. Soedin., Moscow, USSR
 CORPORATE SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya
 SOURCE: (1969), (5), 1194-5
 CODEN: IASKA6; ISSN: 0002-3353
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB Heating 13 g. p-ClC6H4SO2NC12 with 5.3 g. CH2:CHCN and 1.43 g. dicyclohexyl peroxydicarbonate in CCl4 under N at 60-5.degree. for 1.5 hrs. gave a solid, which after washing with more CCl4 gave after treatment with EtOH 1.9 g. sol. C24H23Cl2N7O2S, m. 135-40.degree., and alc.-insol. material that was not identified. The sol. fractions were fractionated from CCl4 to yield 2.8 g. p-ClC6H4SO2NHCH2CHClCN and 2.5 g. p-ClC6H4SO2NH(C2CH(CN))2Cl, m. 68.degree., and mixed analogous telomers with 3-5 links of the acrylonitrile component, which were not sepd. From other similar runs with varying proportions of starting materials were isolated similar telomers from n = 1 to n = >6. The following were isolated in the pure state: p-ClC6H4SO2NH(CH2CH(CN))nCl: n = 7, decompd. 150-8.degree.; n = 9, decompd. 190-200.degree.; n = 14, decompd. 205-15.degree.. Ir spectra are reported.
 IT 24729-16-6P 24729-17-7P 24729-18-8P
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
 RN 24729-16-6 CAPLUS
 CN Benzenesulfonamide, p-chloro-N-(12-chloro-2,4,6,8,10,12-hexacyanododecyl)- (8CI) (CA INDEX NAME)



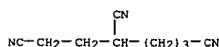
PAGE 1-B

RN 24729-17-7 CAPLUS
 CN Benzenesulfonamide, p-chloro-N-(14-chloro-2,4,6,8,10,12,14-heptacyanotetradecyl)- (8CI) (CA INDEX NAME)

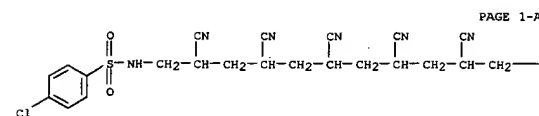
L4 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN
 ACCESSION NUMBER: 1968:96360 CAPLUS
 DOCUMENT NUMBER: 68:96360
 TITLE: Polyacrylonitrile
 INVENTOR(S): Baizer, Manuel M.
 PATENT ASSIGNEE(S): Monsanto Co.
 SOURCE: U.S., 6 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3375237	A	19680326	US 1964-422431	19641230

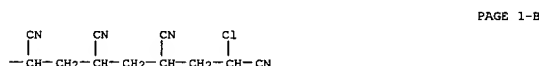
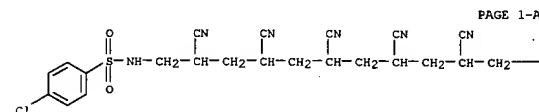
 PRIORITY APPLN. INFO.: Division of U.S. 3,245,889 (CA 64: 19920d). The disclosure is similar, but the claims are different.
 IT 1772-25-4P
 RL: PREP (Preparation) (prepn. of)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN (Continued)

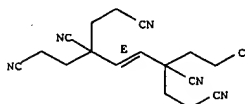


RN 24729-18-8 CAPLUS
 CN Benzenesulfonamide, p-chloro-N-(18-chloro-2,4,6,8,10,12,14,16,18-nonacyanooctadecyl)- (8CI) (CA INDEX NAME)



L4 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN
 ACCESSION NUMBER: 1967:76086 CAPLUS
 DOCUMENT NUMBER: 66:76086
 TITLE: Reaction of phosphinous acid esters with acrylonitrile
 AUTHOR(S): Dietsche, W. H.
 CORPORATE SOURCE: Shell Grundlagenforsch. Ges., Schloss Birlinghoven, Siegburg, Germany
 SOURCE: Tetrahedron Letters (1966), (51), 6347-51
 CODEN: TELEAY; ISSN: 0040-4039
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 AB Mixts. of H2C:CHCN and various diaryl and arylalkyl phosphinites, RR1POR2 (I) in Me3COH contg. 50 mg. hydroquinone stirred (N atm.) became intensely yellow and after a short induction period reacted exothermically to reflux temp. with sepn. of a cryst. hexamer (II) and oily polymers. After cessation of the exothermic reaction in 1-2 hrs. the mixt. was filtered and the filtrate distd. to yield unreacted H2C:CHCN, a crude fraction of 2 acrylonitrile dimers and phosphinite secondary products. Extn. with MeCN sepd. II from the polymers. The % yields of II, dimers, and polymers were tabulated. Whereas in the absence of solvent extremely vigorous polym. to a brown resin occurred, in the presence of Me3COH the reaction gave 6.2-41.3% yields of II, i.e., 1,1,4,4-tetrakis(2-cyanoethyl)-1,4-dicyano-trans-2-butene, m. 241-3.degree. (HCONMe2-MeCN). I (R = R1 = p-MeC6H4, R2 = Et) and I (R = R1 = Ph, R2 = Et) gave the 28% yields with small amts. of polymer, whereas I (R = R1 = Ph, R2 = CH2CMe3) and I (R = Ar, R = alk., R = Et) gave much polymer with practically complete conversion of H2C:CHCN. All diarylphosphinites independent of the ester groups in the presence of Me3COH gave a quant. yield of Ar2D(O)CH2CH2CN: Ar = Ph, m. 102-3.degree. (C6H6), b0.02 215-19.degree., M+ 255, and Ar = p-MeC6H4, b0.5 240.degree., M+ 283. Ph2PSET and Ph2POPh gave no oligomerization with H2C:CHCN. The reaction of Ar2POR with CH2:CHCN took place in accordance with the mechanism proposed by Takashina and Price (CA 56, 14075b).
 IT 15590-02-0P
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)
 RN 15590-02-0 CAPLUS
 CN 4-Octene-1,3,6,8-tetracarbonitrile, 3,6-bis(2-cyanoethyl)-, (E)- (8CI) (CA INDEX NAME)

Double bond geometry as shown.



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L4 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1966:104396 CAPLUS

DOCUMENT NUMBER: 64:105396

ORIGINAL REFERENCE NO.: 64:19920d-h

TITLE: Electrolytic polymerization of acrylonitrile

INVENTOR(S): Baizer, Manuel M.

PATENT ASSIGNEE(S): Monsanto Co.

SOURCE: 6 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3245889		19660412	US 19630225	

AB Polymers of low mol. wt. are prepd. by controlled electrolysis of catholytes which are concd. solns. contg. acrylonitrile (I), and electrolyte salt, and a compd. that provides a relatively low concn. of protons. The process is generally carried out in the absence of free-radical-generating catalysts and of anions (except carbanions formed in the reaction) capable of catalyzing anionic polymerization of I. Inhibitors of free-radical catalysis may be present. Polymerization proceeds as a result of addn. of 2 electrons to a mol. of I to form a dicarbanion, which then reacts with addnl. I to give a cross-linked configuration. Termination of the polymerization process may be accomplished by increasing the concn. of protons, which add to the carbanion chains and inhibit further reaction. Aryl- and alkatenesulfonic acid salts are esp. suitable for use in anolyte solns., which are sepd. from the cathodic half-cell by a semipermeable membrane or divider. For example, in a jacketed glass vessel contg. 110 ml. Hg as the cathode, a catholyte was placed consisting of a soln. of I (contg. a trace of p-nitrosodimethylaniline) 23.1, tetraethylammonium p-toluenesulfonate (II)

25, HCONMe₂ (III) 82.3, and H₂O 2.6 g. An Alundum cup immersed in the catholyte contained 15 ml. of 80 wt. % II dild. with 5 ml. H₂O as the anolyte. A Pt anode was immersed in the anolyte. The anode and cathode were connected, resp., to the pos. and neg. terminals of a d.c. source.

A current of 0.1-0.5 amp. at a cathode voltage of -1.5 to -1.6 (vs. a satd. Hg/Cl₂ electrode) was passed through the cell for a few min. with no apparent reaction. The voltage was then increased to cause a 1.4-amp. current to flow (at -1.85 v.), and the catholyte temp. rose to >40.degree.. Electrolysis was discontinued after 1.45 amp.-hrs. and the catholyte was dild. with 300 ml. cold H₂O. The resulting polymer was collected by filtration, washed with H₂O, and dried to a wt. of 13.1 g. The product (m. 115-40.degree. osmometric mol. wt. 714) contained C

66.24, H 6.20, and N 25.15%, indicating a mol. of .apprx.14 units of I with the formula H(C₃H₃N)14H. It was sol. in Me₂CO, acetonitrile (IV), concd.

HCl, and Ac₂O. When the procedure of the above example was repeated with IV instead of III as cosolvent, the polymer formed did not sep. from the aq. bath, indicating that IV and H₂O, together in the catholyte, furnished sufficient protons to terminate polymerization at a very early stage.

L4 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1966:104097 CAPLUS

DOCUMENT NUMBER: 64:104097

ORIGINAL REFERENCE NO.: 64:19568h,19569a

TITLE: Nicotinic acid

INVENTOR(S): Baizer, Manuel M.

PATENT ASSIGNEE(S): Monsanto Co.

SOURCE: 3 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

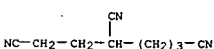
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3246000		19660412	US 19631218	

AB A process is described for the prepn. of nicotinic acid (I) from acrylonitrile (II). Thus, electrolysis of a catholyte of 60 g. tetraethylammonium p-toluenesulfonate, 3 g. H₂O, and 160 g. II and an anolyte of 30 ml. 82% methyltributylammonium methylsulfate in 20 ml. H₂O with 1.5-2.0 amp. for 3.5 amp.-hrs., the mixt. dild. with H₂O, extd. with CH₂Cl₂, and the ext. fractionated to give as one fraction 1,3,6-tricyanohexane (III), b_{0.2} 186-200.degree.. III was heated 24 hrs. at 150.degree. and 3000 psi. with Raney Co and H, the mixt. distd. to give 1,8-diamino-4-aminomethyloctane (IV), b_{0.2} 0-25 98.5-103.0.degree., n_D 27D 1.4822 and a small amt. of 3-(4-aminobutyl)piperidine (V), d₁-HCl salt m. 228.8-30.0.degree.. Hydrogenation of IV in the presence of NH₃ gave V. Acetylation of V with Ac₂O followed by dehydrogenation with 10% Pd on C at 200.degree. gave 3-(4-acetylaminobutyl)pyridine (VI). Oxidn. of VI with HNO₃ gave I.

IT 1772-25-4, 1,3,6-Hexanetricarbonitrile (prepn. of)

RN 1772-25-4 CAPLUS

CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

Polymers suitable for low-temp. molding and coating operations can be prepd. in this way.

IT 1572-42-5, 1,3,5,8-Octanetetracarboxitrile 1572-43-6,

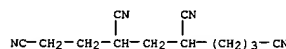
1,3,6,8-Octanetetracarboxitrile 1772-25-4, 1,3,6-

Hexanetricarbonitrile

(formation in acrylonitrile soln. electrolysis)

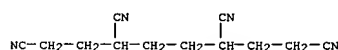
RN 1572-42-5 CAPLUS

CN 1,3,5,8-Octanetetracarboxitrile (7CI, 8CI) (CA INDEX NAME)



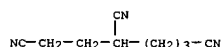
RN 1572-43-6 CAPLUS

CN 1,3,6,8-Octanetetracarboxitrile (7CI, 8CI) (CA INDEX NAME)



RN 1772-25-4 CAPLUS

CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1965:409761 CAPLUS

DOCUMENT NUMBER: 63:9761

ORIGINAL REFERENCE NO.: 63:1695e-h,1696a-c

TITLE: Syntheses with trichloroacetonitrile

INVENTOR(S): Coenen, Nax; Faust, Juergen; Ringel, Christian;

Mayer,

CORPORATE SOURCE:

TECH. UNIV., DRESDEN, GERMANY

JOURNAL fuer Praktische Chemie (Leipzig) (1965),

27(5-6), 239-50

CODEN: JPCEAO; ISSN: 0021-8383

DOCUMENT TYPE:

LANGUAGE: German

AB A series of compds. of the general type CCl₃C(NH₂):CRR' (I) was prepd. by the addn. of the appropriate CH-acidic compds. to CCl₃CN (II) whereby an Ac group can be cleaved off acetylytically. Certain amines eliminate the CCl₃ group in I as CHCl₃ and lead to the corresponding R'NHC(NH₂):CRR' (III). Several 2-substituted 3-amino-3-hydroxyacrylic acid esters and nitriles were cyclized to pyrazoles. II (50 g.) and 30 g. CH₂(CN)₂ in

150 cc. MeOH treated with stirring with 100 cc. H₂O and 5 cc. satd. aq. AcONa and the mixt. stirred about 5 min. gave 54 g. I (R = R' = CN), m. 196.degree. [aq. HCONMe₂ (DMF) or iso-PrOH]. Similarly were prepd. trans-I (R = CN, R' = CO₂Me) (IV), 80%, m. 145-6.degree. (iso-PrOH), and cis-I (R = Bz, R' = CN), 75%, m. 180.degree. (aq. iso-PrOH). BzCH₂CO₂Et (14 g.) and 10.5 g. II in 60 cc. MeOH stirred 0.5 hr. with 20 cc. satd. aq. AcONa and the mixt. heated 5 min. at 60.degree. gave 12 g. trans-I (R = CO₂Et, R' = Bz) (V), m. 100-1.degree. (EtOH). AcCH₂CH₂ (50 g.) and 70 g. II in 200 cc. MeOH treated with stirring with 100 cc. satd. aq. AcONa during 2 hrs. gave 78 g. CCl₃C(NH₂):CHR (VI) (R = Ac). AcCH₂CO₂Me with

II gave similarly 55% VI (R = CO₂Me), m. 53-4.degree. (aq. iso-PrOH).

AcCH₂Bz and II (equimolar amts.) yielded 60% VI (R = Bz), m.

102-3.degree. (aq. iso-PrOH). The appropriate I (0.1 mole) added with stirring to 0.25

mole suitable amine and the mixt. heated 5 min. on the water bath gave

the corresponding III (R = CO₂Me, R' = CN) (R'', m.p., and % yield given):

Pr. 131.degree. (1:1 aq. DMF), 65; iso-Pr, 106.degree. (3:1 MeOH-H₂O and 1:1

iso-PrOH-H₂O), 80; iso-Bu, 123.degree. (MeOH), 95; CH₂:CHCH₂, 110.5.degree. (MeOH), 80; Am, 146.5.degree. (MeOH), 90. Similarly was

prepd. III (R = Bz, R' = CN, R'' = PhCH₂), m. 199-200.degree. (MeOH), 95.

The appropriate I (0.1 mole) in DMF treated with stirring with a suitable

amine or with N₂H₄.H₂O and the mixt. dild. after 10 min. with H₂O gave

the corresponding III (R, R', R'', m.p., % yield, cc. DMF, g. amine or

N₂H₄.H₂O, and cc. H₂O used are given): CO₂Me, CN, NH₂ (VII),

171-3.degree.

(MeOH), 70, 185, 10, 670; Bz, CN, NH₂, 157-61.degree. (H₂O), 70, 145, 15,

430; CO₂Et, Bz, CH₂CH₂OH, 136-7.degree. (C₆H₆), 85, 170, 31, 675; CO₂Et,

CO₂Et, NH₂, 114-15.degree. (H₂O), 65, 245, 15, 380. IV (0.1 mole) in 130

cc. DMF treated dropwise with stirring with 5 g. MeNH₂ in 100 cc. DMF and

the mixt. after 10 min. heated at 70-5.degree. for 3 min. gave 14.1 g.

trans-III (R = CO₂Me, R' = CN, R'' = Me), m. 155-6.degree. (H₂O). IV

(85.2 g.) added with stirring and cooling to 50 g. EtNH₂ and the mixt.

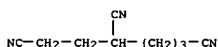
heated 0.5 hr. on the water bath gave 42.5 g. trans-III (R = CO₂Me, R' =

CN, R'' = Et) (VIII), m. 132.5-33.degree. (30% aq. MeOH). (CH₂NH₂)₂ (12

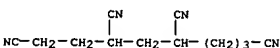
g.) treated with stirring with 84 g. IV (after 42 g. had been added, the

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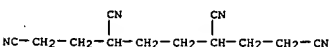
L4 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN (Continued)
 mxt. was dild. with 30 cc. CHCl₃) and heated 5 min. on the water bath
 yielded 4.7 g. yellow [MeO₂C(NC)C(CNH₂)NHCH₂]₂, m. 284-8.degree.
 (decompn.). I (R = R' = CO₂Et) 2 (2 g.) added to 4 g. H₂NCH₂CH₂OH and the
 mxt. heated with stirring to soln., cooled, and dild. with 10 cc. H₂O in
 portions gave 1.3 g. III (R = R' = CO₂Et, R'' = CH₂CH₂OH), m.
 107-8.degree. (C₆H₆). IV (20 g.) in 100 cc. 10% aq. NaOH kept 3 days at
 room temp. gave 2.2 g. CHCl₃; the aq. phase neutralized with concd. HCl
 gave 2 g. unreacted IV; further acidification to pH 2 gave 3 g. brownish
 H₂NC(OH):C(CN)CO₂Me, m. 110-12.degree. (xylene). VIII (11.8 g.), 85 cc.
 concd. H₂SO₄, and 150 cc. H₂O treated with stirring during 0.5 min. at
 10-15.degree. with 4.85 g. NaNO₂ in 15 cc. H₂O yielded 4.85 g.
 EtNHC(OH):C(CN)CO₂Me, m. 127.5-28.5.degree. (ligroine, b. 80-90.degree.,
 and then H₂O). VII (15.6 g.) added as rapidly as possible to 300 cc.
 refluxing PhOEt and the mxt. refluxed 140 min. yielded 15.45 g.
 3,5-diamino-4-carbomethoxypyrazole (IX), m. 231-2.degree.. IX stirred
 0.5 hr. with excess BzCl in C₅H₅N gave 40% 3-BzNH analog of IX, m.
 185-6.degree. (MeOH). V (2 g.) in 8 cc. DMF treated with 1 cc. N₂H₄.H₂O
 and then shaken with 30 cc. H₂O yielded 1.2 g. 3-amino-4-carbomethoxy-5-
 phenylpyrazole (X), m. 167-9.degree. (C₆H₆). X (2 g.) in 25 cc. 4N NaOH
 refluxed 2 hrs. yielded 1.1 g. 3-amino-5-phenylpyrazole, m. 126-7.degree.
 (AcOEt-ligroine or aq. MeOH).
 IT 1772-25-4, 1,3,6-Hexanetricarbonitrile
 (prepn. of)
 RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



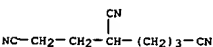
L4 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN
 ACCESSION NUMBER: 1963:409759 CAPLUS
 DOCUMENT NUMBER: 63:9759
 ORIGINAL REFERENCE NO.: 63:1695c-d
 TITLE: Electrolytic reductive coupling. VII. A new class of
 acrylonitrile oligomers
 AUTHOR(S): Baizer, Manuel M.; Anderson, James D.
 CORPORATE SOURCE: Monsanto Co., St. Louis, MO
 SOURCE: Journal of Organic Chemistry (1965), 30(5), 1351-6
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Previous work on the electrolysis of acrylonitrile in aq.
 quaternary ammonium salts under mildly alkaline conditions has been
 extended into the region of high acrylonitrile-water ratios. At
 very low water concns. acetone-soluble, relatively low-melting
 polyacrylonitriles of average mol. wt. 600-1300 are formed. From
 electrolysis of catholytes of intermediate (but still low) water content
 there were isolated an acrylonitrile hydro trimer, consisting of
 1,3,6-tricyanohexane, and a mxt. of hydro tetramers, consisting of
 1,3,6,8- and 1,3,5,8-tetracyanooctane. The structures of these new
 acrylonitrile oligomers were proved by conversion to and
 independent synthesis of the corresponding esters. The electrolytic
 hydropolymerization of acrylonitrile is viewed as proceeding
 from an initially formed .alpha.,.alpha.'-adiponitrile dianion.
 IT 1572-42-5, 1,3,5,8-Octanetetracarbonitrile 1572-43-6,
 1,3,6,8-Octanetetracarbonitrile 1772-25-4, 1,3,6-
 Hexanetricarbonitrile
 (prepn. of)
 RN 1572-42-5 CAPLUS
 CN 1,3,5,8-Octanetetracarbonitrile (7CI, 8CI) (CA INDEX NAME)



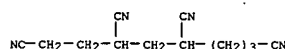
RN 1572-43-6 CAPLUS
 CN 1,3,6,8-Octanetetracarbonitrile (7CI, 8CI) (CA INDEX NAME)



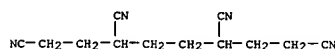
RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)



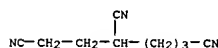
L4 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN
 ACCESSION NUMBER: 1963:409760 CAPLUS
 DOCUMENT NUMBER: 63:9760
 ORIGINAL REFERENCE NO.: 63:1695d-e
 TITLE: Electrolytic reductive coupling. VIII. Utilization
 and
 new preparation of .alpha.-methyleneglutaronitrile
 AUTHOR(S): Baizer, Manuel M.; Anderson, James D.
 CORPORATE SOURCE: Monsanto Co., St. Louis, MO
 SOURCE: Journal of Organic Chemistry (1965), 30(5), 1357-60
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB .alpha.-Methyleneglutaronitrile (I) has been electrolytically
 hydromerized to yield 1,3,6,8-tetracyanooctane (II). Electrolysis of a
 mixture of I and acrylonitrile yielded II and adiponitrile-the
 two hydro dimers-and 1,3,6-tricyanohexane, the product of mixed coupling.
 I and higher oligomers of acrylonitrile have been prepared by
 the reaction of acrylonitrile with catalytic quantities of
 tertiary phosphines in the presence of proton donors.
 IT 1572-42-5, 1,3,5,8-Octanetetracarbonitrile 1572-43-6,
 1,3,6,8-Octanetetracarbonitrile 1772-25-4, 1,3,6-
 Hexanetricarbonitrile
 (prepn. of)
 RN 1572-42-5 CAPLUS
 CN 1,3,5,8-Octanetetracarbonitrile (7CI, 8CI) (CA INDEX NAME)



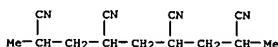
RN 1572-43-6 CAPLUS
 CN 1,3,6,8-Octanetetracarbonitrile (7CI, 8CI) (CA INDEX NAME)



RN 1772-25-4 CAPLUS
 CN 1,3,6-Hexanetricarbonitrile (7CI, 8CI, 9CI) (CA INDEX NAME)

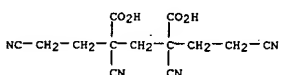


L4 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2003 ACS ON STN
 ACCESSION NUMBER: 1964:425859 CAPLUS
 DOCUMENT NUMBER: 61:25859
 ORIGINAL REFERENCE NO.: 61:4507d-e
 TITLE: Coloration in acrylonitrile polymers
 AUTHOR(S): Takata, Toshihiro; Hiroi, Iwao; Taniyama, Masakazu
 CORPORATE SOURCE: Toho Rayon Co. Ltd., Tokushima, Japan
 SOURCE: Journal of Polymer Science, Part A: General Papers
 (1964), 2(4), 1567-85
 CODEN: JPYAAR; ISSN: 0449-2951
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB The alkali and heat coloration of polyacrylonitrile (I) was investigated
 by using model compds. 2,4-Dicyanopentane, 2,4,6-tricyanoheptane, and
 2,4,6,8-tetracyanononane were treated with alc. KOH, and the ultraviolet
 spectra showed that partly hydrogenated naphthyridine-type structures
 were formed which supported the postulate of Grassie, et al. (G. and McNeill,
 CA 54, 16143a) for alkali-treated I. The intramol. ring closure
 mechanism leading to a similar structure for heat-treated I, as proposed by
 Grassie, et al., was also supported.
 IT 64000-86-8, 2,4,6,8-Nonanetetracarbonitrile
 (reaction with alc. KOH as model for discoloration of
 acrylonitrile polymers)
 RN 64000-86-8 CAPLUS
 CN 2,4,6,8-Nonanetetracarbonitrile (7CI, 9CI) (CA INDEX NAME)

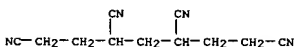


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L4 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1961:130746 CAPLUS
 DOCUMENT NUMBER: 55:130746
 ORIGINAL REFERENCE NO.: 55:24550b-d
 TITLE: Synthesis of 1,3,5,7-tetracyanoheptane
 AUTHOR(S): Vosburgh, W. C.; Green, D. L.
 CORPORATE SOURCE: E. I. du Pont de Nemours and Co., Inc., Wilmington, DE
 SOURCE: Journal of Organic Chemistry (1961), 26, 2118-19
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB 1,3,5,7-Tetracyanoheptane (II) was synthesized as a short-chain model for the polyacrylonitrile mol. HCHO was added to cyanoacetic ester (II) to give di-Et .alpha.,.alpha.'-dicyanoglutarate (III); however, when the reaction temp. was not controlled, only Et .alpha.-cyanoacrylate was formed and it immediately polymerized to a low-mol.-wt. sticky polymer. Paraformaldehyde (60 g.) in 270 g. II treated during 4 hrs. with 4 ml.
 101 KOH in alc., after an addnl. 2 hrs. heating the mixt. adjusted to pH 4, and distd. gave 206 g. III, b.p. 4-0.6 150.5-1.5.degree., n_D20 1.4500, d₄ 1.1416. III (180 g.), 300 ml. dioxane, and 102 ml. acrylonitrile treated with 38.5 g. Triton B over 1 hr. at 30-5.degree., the soln. stirred 16 hrs., poured into H₂O, acidified, and extd. gave 160 g. 1,3,5,7-tetracyano-3,5-di-carbethoxyheptane (IV). Crude IV (160 g.) mixed in 0.5 hr. with 84 g. KOH in 600 ml. MeOH and 400 ml. alc., the salt sepd., and washed gave 39 g. K .alpha.,.alpha.'-dicyano-.alpha.,.alpha.'-bis(.beta.-cyanoethyl)glutarate (V), m. 198-206.degree. (decompn.). V (30 g.) in 250 ml. AcOH kept 2.5 hrs. at 90-100.degree., evapd., the residue extd. with CH₂Cl₂, dried, and evapd. gave 4.5 g. I, m. 106-7.degree. (MeOH).
 IT 100725-15-3, Glutaric acid, 2,4-dicyano-2,4-bis(2-cyanoethyl)-(and derivs.)
 RN 100725-15-3 CAPLUS
 CN Glutaric acid, 2,4-dicyano-2,4-bis(2-cyanoethyl)- (6CI) (CA INDEX NAME)



IT 64918-24-7, 1,3,5,7-Heptanetetracarbonitrile (prepn. of)
 RN 64918-24-7 CAPLUS
 CN 1,3,5,7-Heptanetetracarbonitrile (6CI, 9CI) (CA INDEX NAME)



L4 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1959:77452 CAPLUS
 DOCUMENT NUMBER: 53:77452
 ORIGINAL REFERENCE NO.: 53:13993c-1,13994a-f
 TITLE: Oligomers. XIII. The oligomers of acrylonitrile. 1. Syntheses
 AUTHOR(S): Zahn, Helmut; Schafer, Paul
 CORPORATE SOURCE: Univ. Heidelberg, Germany
 SOURCE: Chemische Berichte (1959), 92, 736-44
 CODEN: CHBEAM; ISSN: 0009-2940
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB cf. C.A. 53, 13047c. MeCH(CN)CO₂Et (30 g.) in 50 g. Me₃COH treated dropwise with 13 g. CH₂:CHCN after the addn. of 0.75 cc. 30% KOH in MeOH, the mixt. stirred 3 hrs. at 35.degree., neutralized with 2N HCl, dild. with 400 cc. H₂O, extd. with Et₂O, and the ext. distd. gave 22 g. MeC(CN)(CO₂Et)CH₂CH₂CN (I), b.p. 114-16.degree.. I (9 g.) and 100 cc.
 481 HBr refluxed 8 hrs., evapd. in vacuo, the residue dissolved in H₂O, extd. with Et₂O, and the ext. dried and evapd. gave 6 g. HO₂CCHMe(CH₂)₂CO₂H, m. 77.degree. (C₆H₆). I (20 g.) in 40 cc. refluxing EtOH treated dropwise with 6.2 g. KOH in 30 cc. EtOH, the mixt. filtered, the residue washed with abs. EtOH, the residual salt dried (18 g.) dissolved in a little H₂O, the soln. treated with an equiv. amt. of concd. HCl, extd. with Et₂O, and the ext. dried and evapd. left 13 g. oily, very hygroscopic HO₂CCHMe(CH₂)₂CH₂CN (II). II (12 g.) in 50 cc. C₅H₅N and 3 g. Cu powder refluxed 1 hr. at 110.degree., cooled, filtered, the C₅H₅N removed in vacuo, the residue treated with N HCl, extd. with EtOAc, and the ext. worked up yielded 6 g. MeCH(CN)CH₂CH₂CN, b.p. 135.degree., n_D20 1.4312. CH₂(CO₂Et)₂ (116 g.), 2 g. Na, 30 cc. abs. EtOH and 73 g. CH₂:CMeCO₂Me in 500 cc. dry Et₂O refluxed 5 hrs., cooled, washed with 12 cc. AcOH in 120 cc. H₂O, then with H₂O, dried, and worked up yielded 140 g. MeO₂CCHMeCH₂CH(CO₂Et)₂ (III), b.p. 155-60.degree.. III (138 g.) in 230 g. Me₃COH treated with 10-15 drops CH₂:CHCN from a 29-g. portion and then with 1 cc. 30% KOH-MeOH at 35.degree., the remainder of the CH₂:CHCN added while twice 1 cc. KOH-MeOH was added, stirred 2 hrs. at 30.degree., neutralized with 2N HCl, and poured into 1 l. H₂O, and the crude product recryst. from petr. ether yielded 148 g. MeO₂CCHMeCH₂CH(CO₂Et)₂CH₂CH₂CN (IV), needles, m. 42.degree.. IV (55 g.) in 150 cc. concd. HCl refluxed
 2 hrs., treated with 50 cc. concd. HCl, refluxed 6 hrs., kept overnight, filtered from NH₄Cl, treated 2-3 times with HCl, again filtered, the filtrate evapd. in vacuo, the oily residue dried over H₂SO₄ and KOH, and the solid residue powdered and extd. in a Soxhlet app. with Et₂O yielded 37.5 g. HO₂CCHMeCH₂CH(CO₂H)CH₂CH₂CO₂H (V), m. 95.degree. (Me₂CO and CHCl₃). V (1.5 g.) heated at 150.degree./12 mm. and the sublimate resublimed yielded 0.7 g. cyclic anhydride of V, needles, m. 82.degree.. V (15 g.) in 30 cc. Ac₂O refluxed 6 hrs., evapd. up to 180.degree., heated at 210.degree./12 mm., and distd. gave 5 g. 3-methyl-4-oxocyclohexane-carboxylic acid, b.p. 128-30.degree., m. 94.degree.. V (20 g.) in 100 cc. concd. NH₄OH evapd. on the water bath in vacuo left 23 g. NH₄ salt of V. The NH₄ salt (20 g.) in H₂O treated with 46 g. AgNO₃ in H₂O pptd. the amorphous Ag salt of V, decomp. 205.degree.. Dry Br (9 cc.) in 46 cc. dry CCl₄ treated with 30 g. Ag salt of V at 50.degree. in small portions, refluxed 0.5 hr., filtered, and the filtrate shaken with aq. satd.

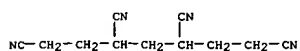
Kamal Saeed

L4 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

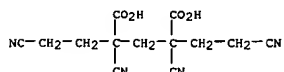
and 10% aq. KOH contg. NaCl, dried, and distd. yielded 6 g. .alpha.-methyl-.gamma.-bromoethyl-.gamma.-butyrolactone, b.p. 0.1 73.degree..
 V (12 g.), 48 cc. abs. EtOH, and 1 cc. concd. H₂SO₄ refluxed 7 hrs. gave 12 g. tri-Et ester of V, b.p. 0.7 110-15.degree.. V (15 g.), 45 cc. abs. MeOH, and 1.2 concd. HCl gave similarly 13 g. tri-Me ester (VI) b.p. 98-101.degree.. VI (40 g.) and 32 cc. liquid NH₃ kept 4 weeks at room temp. in a sealed tube yielded 32.5 g. triamide (VII) of V, needles, m. 169.degree. (Me₂CO). VII (10 g.) and 10 cc. POCl₃ heated with stirring to 70.degree., cooled, dissolved in iced H₂O, neutralized with Na₂CO₃, shaken with EtOAc, and the ext. distd. gave 1.0 g. NCCH₂CH₂CH(CN)CH₂CH(CN)Me, b.p. 0.1 80.degree. (bath), n_D20 1.4646. NCCH₂CO₂Et (VIII) (56.6 g.) in 100 g. dioxane treated dropwise with 53 g. CH₂:CHCN while 4.5 cc. 30% KOH-MeOH was added in 4 portions, stirred 2 hrs. at room temp., neutralized with 2N HCl, and poured into 1 l. H₂O yielded 105 g. Et ester (IX), prisms m. 37.degree.. of HO₂C[CH(CN)CH₂CH₂CN]₂ (X). IX (50 g.) in 150 cc. EtOH treated dropwise with 12.7 g. KOH in 50 cc. EtOH below 50.degree., filtered, and the residual salt washed with EtOH, dried in vacuo (48 g.), dissolved in a little H₂O, acidified with concd. HCl, and extd. with Et₂O yielded 31 g. very hygroscopic X, m. 84.degree.. X (7 g.) in 40 cc. C₅H₅N refluxed with stirring during 45 min. at 110.degree. with 2 g. Cu powder, cooled, filtered, evapd. in vacuo, the residue treated with a little N HCl, extd. with EtOAc, and the ext. worked up yielded 2.2 g. NCCH(CN)CH₂CH₂CN₂, b.p. 0.1 85.degree. (bath), n_D20 1.4644. VIII (100 g.) and 30 g. 40% aq. CH₂O treated with cooling and shaking with 0.6 cc. piperidine, refrigerated 2 hrs., kept at room temp. overnight, refluxed 12 hrs., neutralized with dil. HCl, and the product sepd., dried, and distd. yielded 51 g. CH₂[CH(CN)CO₂Et]₂ (XI), b.p. 0.7 145-50.degree.. VIII (57 g.) and 11.5 g. Na in 350 cc. refluxing abs. EtOH treated dropwise with stirring with 60 g. CH₂Br₂, stirred 3 hrs. at room temp. refluxed 4 hrs., kept overnight, filtered, concd., poured into H₂O, neutralized with dil. HCl, and extd. with Et₂O yielded XI. XI (47 g.) in 100 cc. Me₃COH treated dropwise with stirring at reflux with 21 g. CH₂:CHCN, while three 1-cc. portions 30% KOH-MeOH were added, stirred 3 hrs. at room temp., neutralized with 2N HCl, poured into 1 l. H₂O, and worked up in the usual manner yielded 32 g. CH₂[C(CN)(CO₂Et)CH₂CH₂CN]₂ (XII), needles, m. 95.degree. (EtOH). XII (30 g.) in 100 cc. refluxing EtOH treated with stirring dropwise with 9.7 g. KOH in 30 cc. EtOH, kept overnight, filtered, and the solid washed, dried, acidified with concd. HCl, and extd. with Et₂O yielded 13 g. CH₂[C(CN)(CO₂H)CH₂CH₂CN]₂ (XIII), very hygroscopic, m. 136.degree.. XIII (5 g.) in 50 cc. C₅H₅N refluxed 1.5 hrs. at 110.degree. with stirring with 3 g. Cu, cooled, filtered, evapd. in vacuo, the residue treated with a little N HCl, extd. with EtOAc, and the ext. worked up yielded 0.5 g. CH₂[CH(CN)CH₂CH₂CN]₂, b.p. 0.1 95.degree. (bath). CH₂[CH(CO₂Et)₂]₂ (30 g.) in 50 cc. refluxing dioxane treated dropwise with stirring with 10 g. CH₂:CHCN, and the mixt. treated in the usual manner at the beginning and the end of the addn. with 1 cc. 30% KOH-MeOH, and then processed gave 18 g. CH₂[C(CO₂Et)₂CH₂CH₂CN]₂, leaflets, m. 93.degree. (EtOH). By sapon. of the appropriate nitriles with concd. HCl or HBr were prepd. acids HO₂CCH₂CH₂CH₂CHMeCO₂H, m. 77.degree., V, m. 95.degree., and HO₂CCH(CN)CH₂CH₂CO₂H, m. 114.degree..
 IT 64918-24-7, 1,3,5,7-Heptanetetracarbonitrile 100725-15-3

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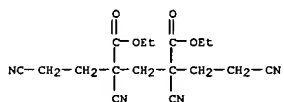
L4 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
Glutaric acid, 2,4-dicyano-2,4-bis(2-cyanoethyl)- 107273-45-0,
Glutaric acid, 2,4-dicyano-2,4-bis(2-cyanoethyl)-, diethyl ester
(prepn. of)
RN 64918-24-7 CAPLUS
CN 1,3,5,7-Heptanetetra-carbonitrile (6CI, 9CI) (CA INDEX NAME)



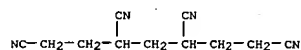
RN 100725-15-3 CAPLUS
CN Glutaric acid, 2,4-dicyano-2,4-bis(2-cyanoethyl)- (6CI) (CA INDEX NAME)



RN 107273-45-0 CAPLUS
CN Glutaric acid, 2,4-dicyano-2,4-bis(2-cyanoethyl)-, diethyl ester (6CI)
(CA INDEX NAME)



L4 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1955:59012 CAPLUS
DOCUMENT NUMBER: 49:59012
ORIGINAL REFERENCE NO.: 49:11363b-d
TITLE: The properties of nitrile binary systems and their
relation to polyacrylonitrile solubility
AUTHOR(S): Phibbs, M. K.
CORPORATE SOURCE: DuPont Co. Can., Kingston, ON
SOURCE: Journal of Physical Chemistry (1955), 59, 346-53
CODEN: JPCHAX; ISSN: 0022-3654
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The solvent powers of liquids for 1,3,5,7-tetracyanoheptane and for
polyacrylonitrile are qualitatively the same. Good nitrile solvents are
characterized by heat evolution and vol. expansion on mixing with
glutaronitrile. A qual. correlation exists between excess entropies of
mixing and nonideal vol. changes on mixing in the nitrile binary systems.
Vapor pressure and viscosity data are given for some glutaronitrile
binary systems. No correlation exists between viscosity and any of the other
measured properties. Good nitrile solvents must be composed of mols.
with high dipole moments, a low hydrocarbon/polar group ratio, and no
self-H-bonding power.
IT 64918-24-7, 1,3,5,7-Heptanetetra-carbonitrile
(soly. of)
RN 64918-24-7 CAPLUS
CN 1,3,5,7-Heptanetetra-carbonitrile (6CI, 9CI) (CA INDEX NAME)



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LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

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TOTAL

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SESSION

FULL ESTIMATED COST

181.60

330.36

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

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-25.39

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